

## **SR 167 HIGH OCCUPANCY TOLL (HOT) LANES PROJECT**

### **BRIEFING PAPER**

Prepared for the  
December 2003 Transportation Commission Meeting

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Approved by: Paula J. Hammond, Chief of Staff

### **PURPOSE:**

Obtain approval to proceed with steps to advance the SR 167 HOT Lane Pilot Project proposal for implementation, which includes seeking State Legislative approval and further development of funding options.

### **BACKGROUND:**

In January of 2003, the Washington State Transportation Commission adopted a resolution directing WSDOT to evaluate the possible implementation of High Occupancy Toll (HOT) lane systems for managing HOV lane capacity that is consistent with the maintenance of trip reliability and travel-time performance for transit and van pools. The intent of the pilot project is to improve the overall efficiency of the roadway while maintaining the travel speeds for transit and other HOV lane users. In November the Commission was briefed on the draft results of the SR 167 HOT Lanes Pilot Project analysis.

A HOT lane refers to one or more HOV lanes on a highway that uses tolls as a means to maintain travel-time and reliability. When there is available space, eligible drivers would be allowed to use the HOT lane by paying a toll through an electronic toll collection system – no tollbooths would be required.

The HOV segments of SR 167 within King County were selected as the top candidate for a proposed HOT lane pilot project because the corridor has congestion in the peak direction, available HOV lane capacity, and room to make needed improvements.

Toll prices would vary, depending on traffic volumes and would ensure HOV/HOT lane travel speed and reliability. For the SR 167 pilot project, access into the HOT lane would remain free for transit, vanpools, and carpools and single occupant vehicles would pay a toll to use the lane during congested periods of the day.

### **DISCUSSION:**

The analysis of the SR 167 HOT Lane Pilot Project includes a conceptual design of the HOT lane roadway, traffic modeling, operational evaluation, and revenue estimates.

The SR 167 HOT Lane Pilot Project proposal is to convert the HOV lanes on SR 167 within King County to HOT lanes – approximately nine miles in each direction from I-405 in Renton to

Southwest 15<sup>th</sup> Street in Auburn. This would involve re-striping the existing lanes to create a four-foot buffer between the single HOT lane and the two general-purpose lanes. Access to the HOT lanes would be provided at each end and at several mid-point locations between interchanges. A minor improvement to the interchange at I-405 is also proposed. If approved, this pilot project would be the first HOT lane in the state, and one of two HOT lane programs in the U.S. that evaluates the efficiencies that can be gained by the conversion of a single HOV lane to a HOT lane with multiple access points.

Findings of the analysis indicate there are still several unanswered questions related to access and egress to the HOT lanes that will only be known by actual implementation. The traffic modeling that has been done indicates that implementation of the HOT lanes can improve the overall effectiveness of the existing facility and benefit all users of the SR 167 corridor. Model analysis of a SR 167 HOT lane between Renton and Auburn indicate an approximate 13% improvement in the efficiency (ability to move more people and vehicles) of the highway during peak hours.

SR 167 northbound a.m. peak hour:

- 12% increase in efficiency in all three lanes.
- 20% increase in efficiency in the HOT lane.

SR 167 southbound p.m. peak hour:

- 13% increase in efficiency in all three lanes.
- 56% increase in efficiency in the HOT lane.

The early capital cost estimate for the SR 167 HOT Lane Pilot Project is approximately \$14 million based on conceptual design and including the improvements to the I-405 interchange. Additional investigation of administrative costs are needed (e.g. administrative costs, transponders, etc.)

#### **Additional Notes:**

WSDOT is coordinating with the Tacoma Narrows Bridge, Washington State Patrol and the Department of Licensing on implementation and operational issues. Because of the uniqueness of this proposal, it is receiving local and national attention. The proposed pilot project received a great deal of media coverage, editorial board endorsement, letters to the editor, and e-mails via the project website. The SR 167 pilot project was featured at a recent conference sponsored by the Discovery Institute. A summary of public and media comments has been compiled for the Commission to review.

#### **RECOMMENDATION:**

It is recommended that the Commission direct the Department to proceed with steps to advance the SR 167 HOT Lane Pilot Project proposal for implementation, which includes seeking State Legislature approval and further development of funding options.

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